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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,910	12/26/2001	Myong Gi Jang	8733.539.00	7515

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EXAMINER

ERDEM, FAZLI

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 04/23/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/025,910

Applicant(s)

JANG, MYONG GI

Examiner

Fazli Erdem

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 November 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 and 2 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Moon (6,392,626) further in view of Kumanagi (JP 09034381).

Regarding Claims 1 and 2, Takeishi discloses a signal processing circuit board and liquid crystal display apparatus with variable resistor which are hardly declined in the mechanical strength while its variable resistor is not limited to one particular location for the installation where the circuit board includes a board body, a variable electronic element, and a hole. The variable electronic element is mounted in a mounting side of the board body. The variable electronic element has an operating member to control an output outputted from the variable electronic element in a single side of the variable electronic element. The hole is provided in the board body. The operating member is positioned in the hole such that the operating member points in the other side opposite to the mounting side of the board body. Takeishi fails to disclose the cover configuration and the shield cover position configurations. However, Moon discloses a liquid crystal display device having different common voltages where the required shield cover structure is disclosed. Furthermore, Kumagai, discloses a structure for attaching variable resistor to liquid crystal display section where the required cover position structure is disclosed.

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It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required cover configuration and the cover position configuration in Takeishi as taught by Moon and Kumagai respectively, in order to have a liquid crystal display device with better performance.

2. Claim 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Moon (6,392,626) further in view of Kumanagi (JP 09034381) further in view of Adachi et al. (6,025,901).

Regarding Claim 3, Takeishi, Moon and Kumanagi combination fail to disclose the chamfered structure. However, Adachi et al. disclose a liquid crystal display device and method for producing the same where the required chamfered structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required chamfered structure in Takeishi, Moon and Kumagai combination as taught by Adachi et al. in order to have a liquid crystal display device with better performance.

3. Claim 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Moon (6,392,626) further in view of Kumanagi (JP 09034381) further in view of Yoshii et al. (6,388,722).

Regarding Claim 4, Takeishi, Moon and Kumanagi combination fail to disclose the required connector structure. However, Yoshii et al. disclose a back light system for minimizing

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non-display area of liquid crystal display device where the required connector structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required connector structure in Takeishi, Moon and Kumagai combination as taught by Yoshii et al. in order to have a liquid crystal display device with better performance.

4. Claims 5 and 6 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Moon (6,392,626) further in view of Kumanagi (JP 09034381) further in view of Imaeda (6,025,644)

Regarding Claims 5 and 6, Takeishi, Moon and Kumanagi combination fail to disclose the required slit structure. However, Imaeda discloses a liquid crystal display and apparatus using the same where the required slit structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required slit structure in Takeishi, Moon and Kumagai combination as taught by Imaeda in order to have a liquid crystal display device with better performance.

5. Claim 7 rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Kumanagi (JP 09034381) further in view of Imaeda (6,025,644).

Regarding Claim 7, Takeishi discloses a signal processing circuit board and liquid crystal display apparatus with variable resistor which are hardly declined in the mechanical strength

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while its variable resistor is not limited to one particular location for the installation where the circuit board includes a board body, a variable electronic element, and a hole. The variable electronic element is mounted in a mounting side of the board body. The variable electronic element has an operating member to control an output outputted from the variable electronic element in a single side of the variable electronic element. The hole is provided in the board body. The operating member is positioned in the hole such that the operating member points in the other side opposite to the mounting side of the board body. Takeishi fails to disclose the required liquid crystal display device surface configuration, and slit configuration. However, Kumagai, discloses a structure for attaching variable resistor to liquid crystal display section where the required liquid crystal display device surface configuration is disclosed. Furthermore, Imaeda discloses a liquid crystal display and apparatus using the same where the required slit structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required surface configuration and the slit configuration in Takeishi as taught by Kumagai and Imaeda, in order to have a liquid crystal display device with better performance.

6. Claims 8 and 10 and rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Kumanagi (JP 09034381) further in view of Imaeda (6,025,644). Further in view of Hung et al. (6,188,568).

Regarding Claims 8 and 10, Takeishi, Kumanagi, and Imaeda combination fail to disclose the required flap structure. However, Hung et al. disclose a display panel for a portable computer where the required flap structure is disclosed.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required flap configuration Takeishi, Kumagai, and Imaeda combination as taught by Hung et al. in order to have a liquid crystal display device with better performance.

7. Claims 9 and 11 and rejected under 35 U.S.C. 103(a) as being unpatentable over Takeishi (US 2001/0005240) in view of Kumanagi (JP 09034381) further in view of Imaeda (6,025,644). Further in view of Hung et al. (6,188,568) further in view of Adachi et al. (6,025,901).

Regarding Claims 9 and 11, Takeishi, Kumanagi, Imaeda, and Hung et al. combination fail to disclose the required chamfered structure. However, Adachi et al. disclose the required chamfered structure.

It would have been obvious to one of having ordinary skill in the art at the time the invention was made to include the required chamfered configuration in Takeishi, Kumagai, Imaeda, and Hung et al. combination as taught by Adachi et al. in order to have a liquid crystal display device with better performance.

### ***Conclusion***

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fazli Erdem whose telephone number is (703) 305-3868. The examiner can normally be reached on M - F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (703) 308-6601. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

FE  
April 21, 2003

  
NATHAN J. FLYNN  
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